

LOUISIANA TECHNOLOGY INNOVATIONS FUND PROGRESS REPORT

**1 September, 2000
for the period ending 30 June, 2000**

I. DEPARTMENT / AGENCY

Louisiana State University, Department of Physics and Astronomy

II. PROJECT TITLE

"Training Today's Students for Tomorrow's Internet Work Environment"

III. PROJECT LEADER

Dr. T. Gregory Guzik
Department of Physics and Astronomy
Louisiana State University
Baton Rouge, LA 70803-4001
Phone: 225-388-8597
Fax: 225-388-1222
E-mail: guzik@phunds.phys.lsu.edu

IV. DESCRIPTION OF THE PROJECT

During this project we will develop a system to provide today's school children with experience in using the internet to control, access and operate robotic instruments much in the way that they may in tomorrow's high technology network based work environment. This will include internet control interfaces for the Highland Road Park Observatory telescope, for the ATIC balloon-borne "space" experiment and for a HAM radio satellite communication system. In addition a group of teacher leaders will work with us to develop a curriculum that will provide the context and structure necessary for students to use these internet accessed instruments effectively. During the project we will partner with various community and business organizations such as HAM radio operators, amateur astronomers, Southern University, LaSPACE, and a local television station to provide needed expertise and to enhance the quality of the product. The final products of this project will include a set of operational internet "robots", the materials necessary to train teachers in the use of these devices, the supporting classroom materials to be used by students, and an evaluation of the project effectiveness based upon classroom assessments

V. PROJECT STATUS

A. Brief Summary

This project was officially started during May, 2000 and to facilitate discussion a short hand project name was developed. In particular, this project will also be referred to as Project ROBIE, where ROBIE stands for "Robots for Internet Experiences". In the short period of time since project start and June 30, we were able to establish several working groups, order some core equipment and begin initial development of the teaching materials.

B. Accomplishments

We have established a Teacher Leader Team consisting of Shelly Simmons, Michelle Macloud, Mary Gail Yeates, Greg Sollie, Lucy Dunaway and Kim Badinger. The Teacher Leader Team will work with us over the summer to design and develop the ROBIE teaching guide. Erin Babin, who is site coordinator for the LaSIP PLATO project, will help coordinate this effort. The ROBIE Teacher team has met several times during May and June to outline the scope of the effort and several more meetings are scheduled for June. The team will then be full time on LSU campus during July and into August.

We have ordered five of the Teacher Workstations, the Training Starlab, as well as some support software and network hardware. This equipment will be used by the Teacher Leader Team to develop the ROBIE teaching guide.

We have also established a ROBIE hardware / software development team consisting of James Giammanco, Mark Coles, Jonathan Kerns, Pat Crawford, Patrick Motl, and Micheal Stewart. This team will be responsible for developing the ROBIE internet interface software in conjunction with input from the teacher team. This team has met once and work is now proceeding to establish a telescope simulator on campus for testing interface concepts. The team is also working to specify the radio station equipment and required server systems.

To coordinate the effort of both teams we will make extensive use of e-mail. To this end we have established a series of e-mail lists for use by the ROBIE project with one list dedicated to hardware / software issues, one for teaching issue and one for general announcements. An e-mail sent to single list address will be distributed to all list subscribers and the message will be archived. An ftp upload / download site has also been established to facilitate the transfer and distribution of code and/or large files.

C. Problems Encountered

The original schedule submitted with the MOU assumed a April 1, 2000 start date. Unfortunately, we were not able to commit resources to begin the project until the MOU official signed by the Division of Administration was returned to LSU on May 8, 2000. LSU was then able to expedite establishing a project account and purchasing was finally authorized on May 22, 2000. We will attempt to make up this schedule slip during the course of the entire project.